

**REMARKS**

In view of the following remarks, Applicants respectfully request reconsideration and allowance of the subject application. This paper is believed to be fully responsive to all issues raised in the present Office action.

Claims 1, 3-7, 9-15, 18, 21, 31, 34 and 35 have been amended.

Claims 2, 8, 16, 17, 22 and 23 have been canceled.

Claims 36 and 37 have been added.

Claims 1, 3-7, 9-15, 18-21, 24-37 are pending.

**35 U.S.C. §112 Rejections**

The Examiner has rejected Claims 15-17 under 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter. Claim 15 has been amended to particularly point out and distinctly claim the subject matter. Claims 16 and 17 have been canceled, thus rendering the rejection thereof moot.

**Claim 15**

The Applicants have amended Claim 15 to call for:

"A method of claim 1 wherein the drill link is additionally associated with an object of the relational abstraction, the object having a base view that is a destination view of a relation in the sequence." (Underlining for emphasis)

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Accordingly, Applicants submit that Claim 15 is not indefinite under 35 U.S.C. §112.

35 U.S.C. §102(b) Rejections

Claims 1–3, and 8–35 stand rejected under 35 U.S.C. §102(b) as being anticipated by Getting Results with Microsoft Office 97 (Hereinafter "Office"). Applicants respectfully traverse the rejection.

Claim 1

Independent Claim 1 reads as follows:

1. A method for creating drill links in a report, comprising:
  - a) accessing a relational abstraction of a data store, the relational abstraction including a plurality of views, scalar or aggregate fields associated with the views, relations between the views, and a metadata layer that includes one or more objects that contain properties describing the data store, the views, the fields, and the relations; and
  - b) providing a user interface for creating a report that includes at least one drill link.

In rejecting Claim 1, the Examiner states:

"Regarding independent claim 1, Office discloses the creation, a displaying of a pivot table view for displaying data found in a database in a quick way. The pivot table includes several page fields, rows, columns, and cells for relating the data to be found in various reports (pages 563–568)-- defining a relational abstraction of a data store, the definition including a plurality of views, scalar or aggregate fields associated with the views, and relations between the views.

Furthermore, Office teaches the generation of a report which has a drop-down button, which for example allows you to view the summary for each salesperson found in the database in a company (page 568)-- generating a report that includes at least one drill link associated with a

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sequence of zero or more relations originating at a base view of the relational abstraction."

From the above text, it appears the Examiner may be equating creating and displaying a PivotTable view with a relational abstraction of a data store recited in Claim 1. The Examiner is implying that since the pivot table includes several page fields, rows, columns, and cells for relating the data to be found in various reports that Office teaches "a relational abstraction of a data store, the relational abstraction including a plurality of views, scalar or aggregate fields associated with the views, relations between the views...." (Amendment emphasized) The Applicants respectfully disagree, for at least the following reasons:

As stated in pages 563–564 of Office:

"Create a Sales Summary  
*Use PivotTables to Summarize Sales Data*

Chances are, you have all the detailed data you need to make decisions, but it isn't always presented in a way that makes it easy to draw conclusions from it. For example, suppose what you want is the big picture: How is each product selling? Who is selling the most of each product?

From the same data, you can create several instant summaries, called *PivotTables*, to answer your questions. If you work with sales figures or other similar business data, Microsoft Excel can rapidly produce the summaries you want from the details you have.

What Information Is Buried in Your Data?

Your company probably keeps a separate record describing each order processed. Scanning the list shows hundreds of orders just for the products you are responsible for tracking. You want a fast way to see how much each representative has sold of each product.

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**Guidelines: Setting Up Data for a PivotTable**

Label your columns PivotTables use your column labels to cross-tabulate your data. For example, you can summarize orders by product or by sales representative.

Use one worksheet row for each record A PivotTable summarizes data stored in rows.

Make sure any dates are in date format Select any column with dates, and click Cells (Format menu). On the Number tab, click the Date category, and then select the date type you want.

If the column contains repeating information, spell each entry the same way each time Entries that are the same, such as entries for seafood or meat in a product column, can be grouped together automatically in the PivotTable."

As described in the above excerpt of Office, the pivot table summarizes a subsection of the data, the subsection determined by the creator of the pivot table. That is, the summary of the data displayed in a pivot table is determined by the creator of the pivot table by selecting columns from a database, and not by a relational abstraction of a data store. In Office, the field name for each column is determined by the data in the first field of every column selected by the creator. This is determined each time the creator selects a subsection of the data. In Office, the fields, views, and relations are determined by the creator of the pivot table and not by a relational abstraction of a data store.

Further, Office teaches summarizing a subsection of data to be defined by the creator. However, Claim 1 has been amended to include "accessing a relational abstraction of a data store, the relational abstraction including a plurality of views, scalar or aggregate fields associated with the views, relations between the views...."

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(Amendment emphasized) Office does not teach accessing a relational abstraction as a step in viewing data or performing actions on data. Rather, Office teaches defining a subsection of data to summarize and viewing or performing actions on the subsection of data. In Office, the relational abstraction cannot be accessed. In Office, actions cannot be performed utilizing the relational abstraction that includes information about the views, fields, and the relations between the views.

Further, claim 1 has been amended to include "a metadata layer comprised of one or more objects that contain properties describing the data store, the views, the fields, and the relations...." Office does not describe a pivot table that contains a metadata layer. There is no discussion or suggestion whatsoever in Office that a metadata layer is used in defining a relational data abstraction of the data store. The metadata layer enables the creation and following of drill links.

Further, Office does not teach "providing a user interface for creating a report that includes at least one drill link." (Underlining for emphasis) The Applicants were unable to find any reference of drill link or use of the term "drill link" in Office. It appears the Examiner is equating a "drop-down button" with a "drill link." The Applicants submit that a "drill link" is not the same as a "drop-down button" as it appears in Office. When a user clicks on a drill link it may run a separate report based on the associated relations of the drill link that may or may not be part of the current view of the report. The separate report may contain data that was not available in the original report. The drill link may also access a web page. In Office, the drop-down button allows a user to view data such as sales by product for each salesperson by allowing the user to select which salesperson to look at individually. The same type of data is presented for each employee selected by the user. A separate report is not generated and only data associated with the current view is presented.

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As noted in the MPEP §2131, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." (Citations omitted) As noted, Office does not teach "accessing a relational abstraction of a data store, the relational abstraction including a plurality of views, scalar or aggregate fields associated with the views, relations between the views, and a metadata layer that includes one or more objects that contain properties describing the data store, the views, the fields, and the relations..." (Underlining for emphasis) and Office does not teach "providing a user interface for creating a report that includes at least one drill link." (Underlining for emphasis) For at least these reasons, Office fails to anticipate Claim 1. Accordingly, Claim 1 is allowable over the cited reference and the rejection of Claim 1 should be withdrawn.

Claims 3–7, 9–15 and 18–20 depend from Claim 1 and are allowable at least by virtue of that dependency. Accordingly, these claims are allowable over the cited reference and the rejection of these claims should be withdrawn.

### Claim 21

Independent Claim 21 reads as follows:

21. A method for following drill links in a report comprising:
  - a) accessing a relational abstraction of a data store, the relational abstraction including a plurality of views, scalar or aggregate fields associated with the views, relations between the views, and a metadata layer having one or more objects that contain properties describing the data store, the views, the fields, and the relations;
  - b) providing a user interface for creating a first report containing at least one drill link;
  - c) upon selection of a drill link in the first report, extracting information associated with the drill link; and

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- d) generating a second report using the extracted information.

Claim 21 recites, among other things, "...accessing a relational abstraction of a data store, the relational abstraction including a plurality of views, scalar or aggregate fields associated with the views, relations between the views, and a metadata layer having one or more objects that contain properties describing the data store, the views, the fields, and the relations...." This accessing a relational abstraction of a data store is identical to accessing a relational abstraction of a data store discussed above with respect to Claim 1. For the reasons stated above with respect to Claim 1, Office does not teach or suggest accessing a relational abstraction of a data store, the relational abstraction including a plurality of views, scalar or aggregate fields associated with the views, relations between the views, and a metadata layer having one or more objects that contain properties describing the data store, the views, the fields, and the relations, as recited in Claim 21. For at least this reasons, Office fails to anticipate Claim 21. Claim 21 is believed to be in condition for allowance, and such allowance is respectfully requested.

Each of Claims 24–33 depends in some form from Claim 21 and, therefore, includes all the limitations of Claim 21. As such, Office fails to anticipate Claims 24–33 for at least the reasons set forth above with respect to Claim 21. Claims 24–33 are believed to be in condition for allowance, and such allowance is respectfully requested.

#### Claim 34

Independent Claim 34 reads as follows:

34. A computer system for creating drill links in a report, the system comprising:

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- a) means for accessing a relational abstraction of a data store, the relational abstraction including a plurality of views, scalar or aggregate fields associated with the views, relations between the views, and a metadata layer that includes one or more objects that contain properties describing the data store, the views, the fields, and the relation; and
- b) means for providing a user interface for creating a report that includes at least one drill link.

Claim 34 recites, among other things, "...means for accessing a relational abstraction of a data store, the relational abstraction including a plurality of views, scalar or aggregate fields associated with the views, relations between the views, and a metadata layer that includes one or more objects that contain properties describing the data store, the views, the fields, and the relation...." This accessing a relational abstraction of a data store is identical to accessing a relational abstraction of a data store discussed above with respect to Claim 1. For the reasons stated above with respect to Claim 1, Office does not teach or suggest accessing a relational abstraction of a data store, as recited in Claim 34. For at least this reason, Office fails to anticipate Claim 34. Claim 34 is believed to be in condition for allowance, and such allowance is respectfully requested.

#### Claim 35

Independent Claim 35 reads as follows:

35. A computer system for following drill links in a report, the system comprising:
- a) means for accessing a relational abstraction of a data store, the relational abstraction including a plurality of views, scalar or aggregate fields associated with the views, relations between the views, and a metadata layer that includes one or more objects that contain properties describing the data store, the views, the fields, and the relation;

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- b) means for providing a user interface for creating a first report containing at least one drill link;
- c) upon selection of the drill link, means for extracting the information associated with the drill link; and
- d) means for generating a second report using the extracted information.

Claim 35 recites, among other things, "...means for accessing a relational abstraction of a data store, the relational abstraction including a plurality of views, scalar or aggregate fields associated with the views, relations between the views, and a metadata layer that includes one or more objects that contain properties describing the data store, the views, the fields, and the relation...." This accessing a relational abstraction of a data store is identical to accessing a relational abstraction of a data store discussed above with respect to Claim 1. For the reasons stated above with respect to Claim 1, Office does not teach or suggest accessing a relational abstract of a data store, as recited in Claim 35. For at least this reasons, Office fails to anticipate Claim 35. Claim 35 is believed to be in condition for allowance, and such allowance is respectfully requested.

## CONCLUSION

Accordingly, in view of the above amendment and remarks it is submitted that the claims are patentably distinct over the prior art and that all the rejections to the claims have been overcome. Reconsideration and reexamination of the above Application is requested. Based on the foregoing, Applicants respectfully requests that the pending claims be allowed, and that a timely Notice of Allowance be issued in this case. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicants' attorney at the telephone number listed below.

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If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed check please charge any deficiency to Deposit Account No. 50-0463.

Respectfully submitted,

Microsoft Corporation

Date: August 31, 2006

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